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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,164	07/09/2003	Michael Merrick	P214136	2717

30662 7590 10/03/2005
SCHACHT LAW OFFICE, INC.
SUITE 202
2801 MERIDIAN STREET
BELLINGHAM, WA 98225-2412

EXAMINER

STAICOVICI, STEFAN

ART UNIT PAPER NUMBER

1732

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/617,164	MERRICK, MICHAEL	
	Examiner	Art Unit	
	Stefan Staicovici	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 10, 29-31 and 35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-28, 32-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-35 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 9/13/02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/10/02</u> <u>3/1/04</u> | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

1. In view of Applicants' response filed July 15, 2005 the election requirement mailed January 25, 2005 has been withdrawn and a new election requirement is presented.
2. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species A is drawn to a vacuum assisted molding process as evidenced by Figure 8; and

Species B is drawn to a vacuum assisted resin infusion molding process as evidenced by Figure 10.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-9, 11-26, 32 and 34 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. During a telephone conversation with Mr. Michael Schacht on September 23, 2005 a provisional election was made with traverse to prosecute the invention of Species A, claims 27, 28 and 33. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10, 29-31 and 35 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

4. The disclosure is objected to because of the following informalities: on page 14, line 7, "FIGS 13-8" should be replaced with --FIGS 3-8--.

Appropriate correction is required.

Claim Objections

5. Claims 12-13 are objected to because of the following informalities: on line 16, after "layers", --and-- should be inserted. Claim 13 is objected to as a dependent claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-9, 11-28 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grimes, III *et al.* (US Patent No. 5,266,249) in view of Pogoda *et al.* (US Patent No. 4,267,147).

Grimes, III *et al.* ('249) teach the basic claimed process of molding a composite article including, providing a mold, applying a gel coat layer, forming a laminate by applying a first resin pre-impregnated fiberglass layer (primary panel), a core material (core panel) onto said first resin pre-impregnated fiberglass layer and a second resin pre-impregnated fiberglass layer (secondary panel) onto said core material, applying a vacuum bag onto said laminate and curing said resin to form said composite article (see col. 5, line 20 through col. 6, line 56). It is submitted that said gel coat layer acts as an adhesive to secure first resin pre-impregnated fiber layer (primary panel) to said mold.

Regarding claim 1, Grimes, III *et al.* ('249) does not teach a plurality of support templates. However, the use of a plurality of support templates to mold a boat is well known as evidenced by Pogoda *et al.* ('147) who teach a process for molding a fiber reinforced structure including, providing a mold template of conventional construction having rib and spar elements (see col. 3, line 35 and Figure 3). Therefore, it would have been obvious for one of ordinary skill

in the art to have provided a plurality of support templates as taught by Pogoda *et al.* ('147) as a mold surface in the process of Grimes, III *et al.* ('249) because such a structure allows for reduced complexity and costs in mold design and also because, Pogoda *et al.* ('147) teaches that said mold is of a conventional construction, hence teaching that it is well known.

In regard to claims 2-5, Grimes, III *et al.* ('249) teaches a plurality of resin pre-impregnated layers that forms the thickness of the resulting molded article. Furthermore, Grimes, III *et al.* ('249) teaches forming two assemblies of resin pre-impregnated layers and core layers that are coupled by a fiber reinforced plastic overlap layer, hence creating a structure without a seam (sealing the butt joint) (see col. 3, lines 15-32 and 58-63).

Regarding claims 6-7, 11-14 and 16, Grimes, III *et al.* ('249) teach the use of a plurality of vacuum tubes (34) and vent tubes (32) that penetrate the mold surface and all the layers of the laminate, thereby creating an alignment of said laminate layers (see Figure 9). It is noted that in order for said plurality of vacuum tubes (34) and vent tubes (32) to penetrate said layers of said laminate as shown in Figure 9, holes must be provided in said layers of said laminate. It is noted that upon application of vacuum some of the resin will be displaced by the effect of said vacuum.

Regarding claims 8-9 and 27-28, although Grimes, III *et al.* ('249) in view of Pogoda *et al.* ('147) do not teach bleeder holes, the use of bleeder holes is well known. Further, it is noted that Grimes, III *et al.* ('249) teaches a bleeder cloth (see col. 7, lines 7-12). Therefore, it would have been obvious for one of ordinary skill in the art to have provided bleeder holes in the laminate in the process of Grimes, III *et al.* ('249) in view of Pogoda *et al.* ('147) because, Grimes, III *et al.* ('249) teaches a bleeder cloth, hence teaching evacuation of the molding

volume and also because it is well known that bleeder holes provide for improved vacuum, hence providing for an improved product by reducing porosity.

Regarding claim 15, Grimes, III *et al.* ('249) teaches fiberglass layers and a core layer (see col. 6, lines 11 and 37).

Regarding claims 17-22, Grimes, III *et al.* ('249) teaches forming two assemblies of resin pre-impregnated layers and core layers that are coupled by a fiber reinforced plastic overlap layer, hence creating a structure without a seam (sealing the butt joint) (see col. 3, lines 15-32 and 58-63). Further, Grimes, III *et al.* ('249) teaches the use of uncured reinforcing fiber plastic layers and uncured foaming epoxy or core splice strips assembled in the joint areas (see col. 3, lines 58-62).

Regarding claims 23-25, Grimes, III *et al.* ('249) teaches forming two assemblies of resin pre-impregnated layers and core layers that are coupled by a fiber reinforced plastic overlap layer, hence creating a structure without a seam (sealing the butt joint) (see col. 3, lines 15-32 and 58-63). Further, Grimes, III *et al.* ('249) teaches the use of uncured reinforcing fiber plastic layers and uncured foaming epoxy or core splice strips assembled in the joint areas (see col. 3, lines 58-62). Furthermore, Pogoda *et al.* ('147) teach a process for molding a fiber reinforced structure including, providing a mold template of conventional construction having rib and spar elements (see col. 3, line 35 and Figure 3). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a plurality of support templates as taught by Pogoda *et al.* ('147) as a mold surface in the process of Grimes, III *et al.* ('249) because such a structure

allows for reduced complexity and costs in mold design and also because, Pogoda *et al.* ('147) teaches that said mold is of a conventional construction, hence teaching that it is well known.

Regarding claim 26 and further regarding claim 32, Grimes, III *et al.* ('249) teaches providing a release sheet (63) over said second resin pre-impregnated fiberglass layer (see col. 7, lines 1-5).

Regarding claims 33-34, Grimes, III *et al.* ('249) teaches forming a laminate by applying a first resin pre-impregnated fiberglass layer (primary panel), a core material (core panel) onto said first resin pre-impregnated fiberglass layer and a second resin pre-impregnated fiberglass layer (secondary panel) onto said core material. It is submitted that resin is introduced between said layers because said layers are pre-impregnated and as such resin must exist between said layers when laminated.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

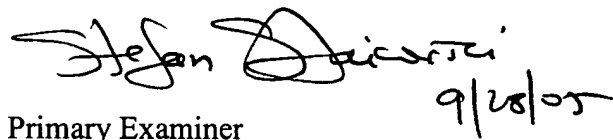
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (571) 272-1208. The examiner can normally be reached on Monday-Friday 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Colaianni, can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stefan Staicovici, PhD

A handwritten signature in black ink, appearing to read 'Stefan Staicovici', with a date '9/28/05' written below it.

Primary Examiner

AU 1732

September 28, 2005